

amended. a stator opposed to said rotor, wherein the stator comprises stacked stator cores, each stator core comprising an inner yoke and an outer yoke, and the inner and outer yokes being integrated by a coil bobbin;

an output side bearing provided on an output side of said rotary shaft, and supporting a portion near an output portion of said rotary shaft; and

an opposite side bearing holding portion for holding an opposite side bearing supporting an opposite side to the output side of said rotary shaft;

wherein said stator cores are integrally formed with the coil bobbin by insert molding, and said output side bearing, the coil bobbin and the opposite side bearing holding portion are made of resin and integrally formed with each other, whereby the output side bearing and the opposite side bearing holding portion are integrated with the stator cores;

wherein a lead screw is formed at the output portion and a rotation of said lead screw directly affects an operated member; and

wherein the opposite side bearing supported by the opposite side bearing holding portion is configured to be movable in an axial direction thereof while being urged toward the output side so that the rotor is urged toward the output side and brought into contact with the output side bearing to thereby be positioned in the axial direction thereof.

a²
5. (Amended) A motor comprising:

a rotor;

a rotary shaft inserted and fixed into said rotor;

a stator opposed to said rotor, wherein the stator comprises stacked stator cores, each stator core comprising an inner yoke and an outer yoke, and the inner and outer yokes being integrated by a coil bobbin; and

an output side bearing provided on an output side of said rotary shaft, and supporting a portion near an output portion;

wherein said stator cores are integrally formed with the coil bobbin by insert molding, and said output side bearing, the coil bobbin and the opposite side bearing holding portion are made of a resin, and integrally formed with each other, whereby the output side bearing and the opposite side bearing holding portion are integrated with the stator cores; and

wherein a lead screw is formed on said rotary shaft from said output portion of said rotary shaft to a portion which is opposed to an inner surface of said output side bearing; and

wherein lubricant is filled in a gap formed between said lead screw and said output side bearing; and

wherein the opposite side bearing supported by the opposite side bearing holding portion is configured to be movable in an axial direction thereof while being urged toward the output side so that the rotor is urged toward the output side and brought into contact with the output side bearing to thereby be positioned in the axial direction thereof.

REMARKS

Claims 1 and 3-5 are all the claims pending in the application. Claim 2 is hereby cancelled, and the features recited therein have been added to claim 1.

Specifically, claims 1 and 5 are hereby amended to recite the structure of the stator (2) in more detail, as well as the structure by which the various elements are interconnected.

Because of the construction as now more particularly recited in claims 1 and 5, the output portion side bearing (41) and the cup portion (35), which supports the opposite output portion side bearing (42), are integrally formed with the stator cores (21, 22), as well as the coil bobbin which is integrated with the stator cores. Accordingly, a relative positioning of the rotor with respect to the stator is extremely accurate.

Moreover, as recited in claims 1 and 5, the rotor is urged and its position is regulated in an axial direction by being abutted with the output portion side bearing (41), which is configured as claimed. Consequently, the rotor can be accurately positioned in its axial direction, and operation of the operational member by the lead screw is performed with high accuracy.

Although the Examiner cites Yamamoto for allegedly “integrally uniting the stator core” (page 3, lines 4-9), Yamamoto clearly fails to teach or suggest the invention as now more particularly claimed. Nowhere in Fig. 2 (or elsewhere) of Yamamoto is there any teaching or suggestion for the combination of features as now more particularly recited in claims 1 and 5. Consequently, claims 1 and 5 are believed to be allowable, and claims 3 and 4 are believed to be allowable at least by virtue of their dependency.

AMENDMENT UNDER 37 C.F.R. §1.111
U.S. SERIAL NO. 10/015,565

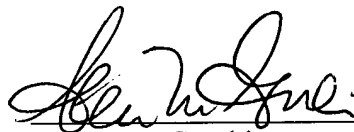
ART UNIT 2834
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Also attached hereto is a Submission of Corrected Formal Drawing wherein Fig. 2 is labelled as --Prior Art-- in accordance with the Examiner's suggestion set forth on page 2 of the Office Action dated June 5, 2002. The Examiner is respectfully requested to acknowledge receipt and indicate approval of the corrected formal drawing in due course.

In view of the preceding amendments and remarks, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue that the Examiner feels may be best resolved through a personal or telephone interview, she is kindly requested to contact the undersigned attorney at the local telephone number listed below.

A Petition for Extension of Time with appropriate fee accompanies this document. The USPTO is directed and authorized to charge all additional required fees (except the Issue Fee and/or the Publication Fee) to our Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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